Chapter 17 Create MDOT Reports

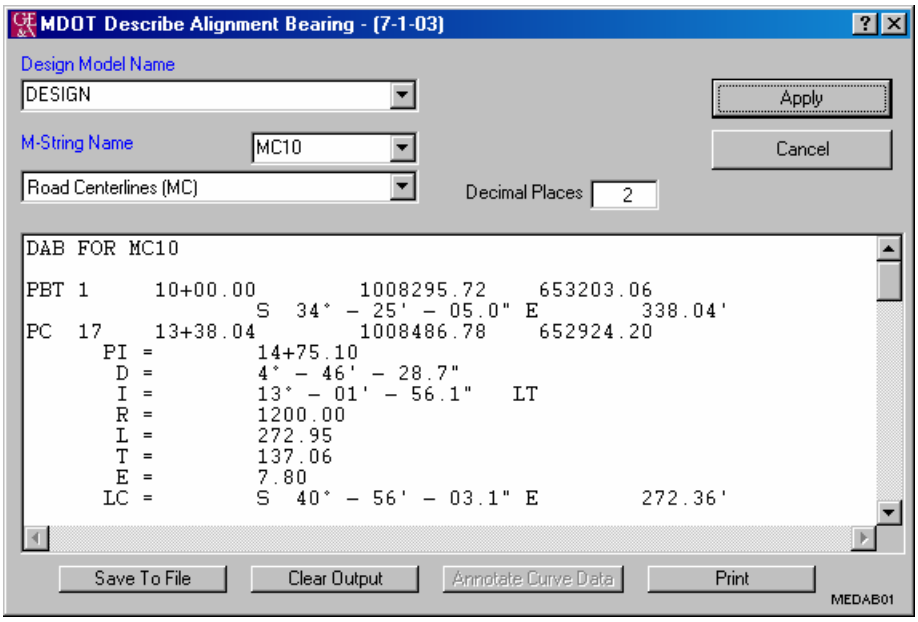
A variety of reports on MX data are required during the design process. In the previous chapter, reports were generated of cut/fill volumes. In this chapter, additional common reports from MX will be generated. Two of the most common types of reports are Horizontal Alignment Reports, and Station-Offset Reports.

Horizontal Alignment Reports

Although MX has it's own capability for generating Horizontal Alignment Reports, a custom MDOT Add-In has been created to produce these reports in MDOT's preferred format, often called "DAB Reports" (Describe Alignment Bearing). The Add-In name is **MDOT DAB.exe**

To use MDOT DAB.exe:

Select ***Reports => MDOT Describe Alignment Bearing*** from the menu bar. The following panel will appear:



Note: The Decimal places box must be properly displaying the correct decimal equivalent for the units of measure for the project.

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Metric – 3

Select the Design Model and M-String label which you'd like the horizontal alignment report on, and click Apply. The data will appear in the text area as shown above.

To Save this data to a file, simply click on the Save to File button, then provide a report filename. It's standard convention to begin the file name with "DAB", and to provide the M-String name as well. The file extension should be "*prn". For the example shown above, the recommended report name would be:

DAB-MC10.PRN

Station – Offset Reports

Another useful type of report that is frequently generated is the Station-Offset report. This report is obtained by calculating normal bearings from a point to a specified alignment, and determining the station at which this normal bearing intersects the alignment. The distance is also calculated. This is particularly useful in checking the offsets of utility poles, trees, and other point features. To generate a Station-Offset Report:

Click ***Report => MDOT Station-Offset*** from the menu bar. The following panel will appear:

1) **Be sure that TEXT.REP is present in your local MX project directory**. If it wasn't copied when setting up a new project, then manually copy it from the Survey/MX/Design_PC directory for that project using Windows Explorer.

2) ***Fill in the Reference Model Name*** (Ex: DESIGN)

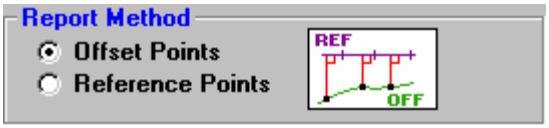
3) ***Fill in the Reference String Name*** (Ex: MC10)

4) ***Fill in the Offset Model Name*** (Ex: GROUND)

5) ***Fill in the Offset String Name*** (Ex: POL)

The Offset String Name can either be a complete string label for a single string like POLE, or you can type in a string "mask", or partial string label, to create a report for all string labels satisfying that mask. For example, you can type in "POL" for the string label, and all strings that have the first three characters of "POL" will be included in the report (Ex: POLE, POLJ, POLG….etc.)

6) ***Select the Offset Points*** report method.

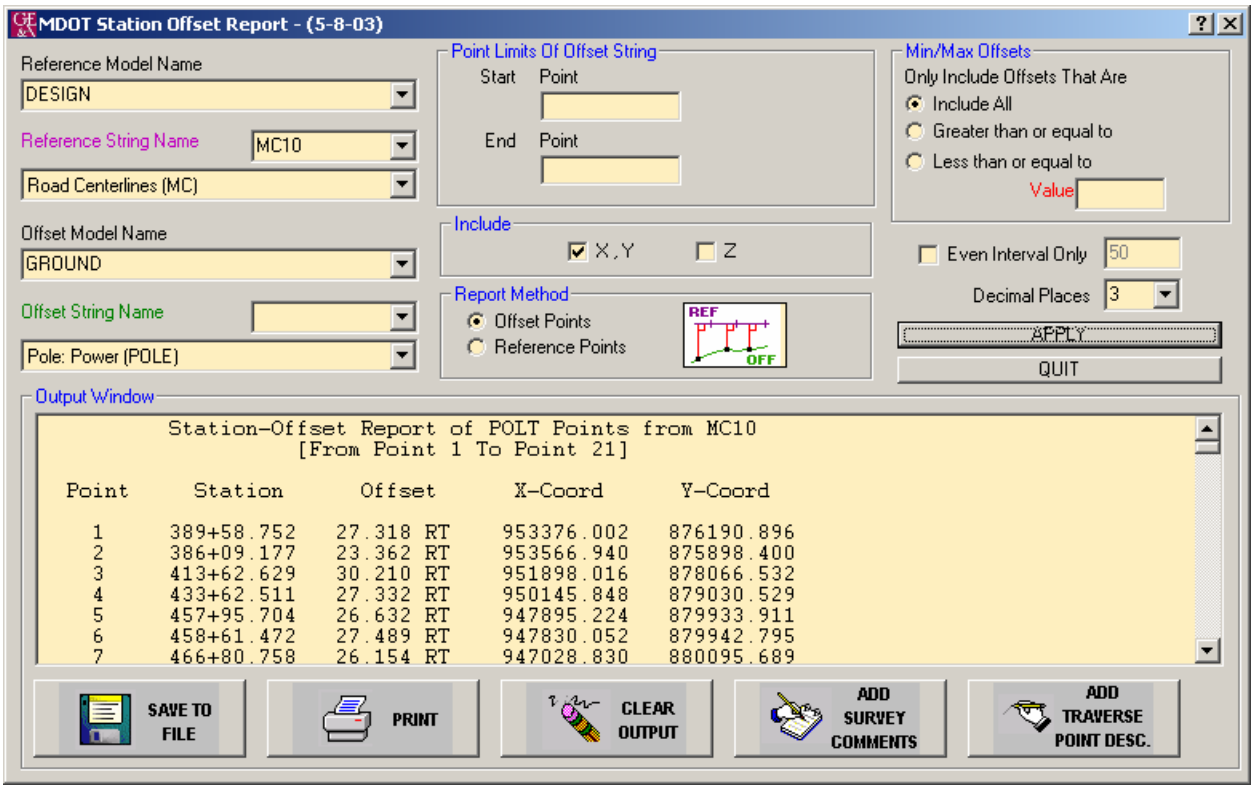


7) ***Check X,Y box*** in the Include section.

8) ***Click Apply***.

Here is an example base report for strings POLT (Pole:Tele), and PT (Trees). PTCP is included in the report but is below the POLT report and must be scrolled down to view it. You can add as many strings to this report as you wish by typing their labels or use of string masks, then clicking Apply.

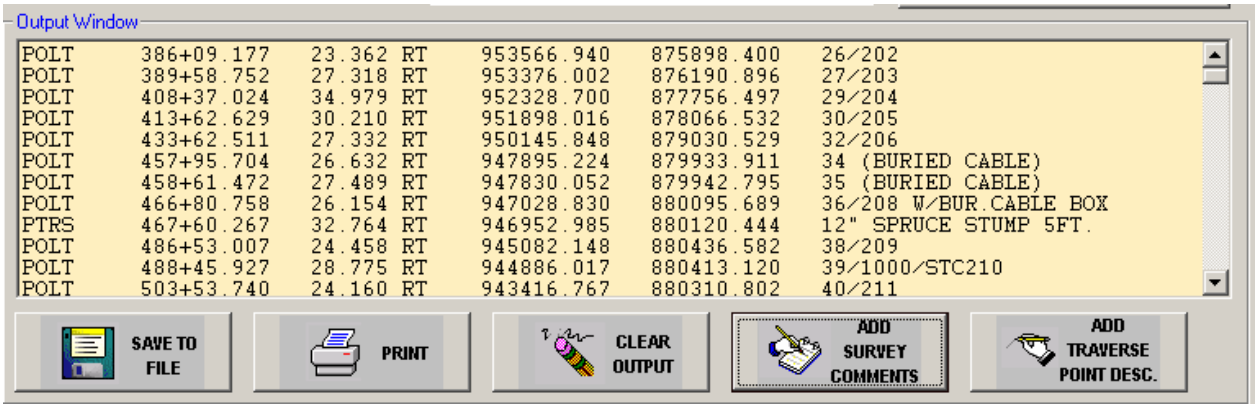
9) **Click the ADD SURVEY COMMENTS** button below the output window.



The output will be modified as pictured below:
All of the reports in the output window (for POLT and PTCP in this case) have been merged into a new report format.

- The string points are sorted by increased stationing. (Regardless of string label)

- The comments associated with that feature point are appended to that line.



You can set specific criteria to include/exclude certain points that are of no interest by specifying:

- **Start and End Points on the offset string**
- **Minimum / Maximum Offsets**

Only those points falling within the criteria specified will be included in the report. You also can chose whether to include / exclude the X, Y, and Z coordinates of the offset point.

As with the MDOT DAB Add-In, you can save the resulting data in a file by clicking the ***Save To File*** button. *You can also print the output to your default Windows NT printer by clicking the **Print** button.*